

Monograph “The Impact of Social Networks on Teaching and Learning”

ARTICLE

University Students’ Attitudes Towards and Expectations of the Educational Use of Social Networks

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Abstract

In the last few years, social networks have revolutionised the way in which many people relate to each other, but their use is still very limited in the academic field. When they are used, the experiences tend to be very isolated and lacking in continuity. In this context, and by means of a questionnaire, our objective is to bring an element of reflection on students' attitudes towards the use of social networks in general, and their use and potential in an educational context in particular. The aim is to compel students to think about these attitudes as a vital first step in getting them to accept and realise the educational potential of social networks.

Keywords

education technology, social networks, expectations, higher education

Actitudes y expectativas del uso educativo de las redes sociales en los alumnos universitarios

Resumen

Las redes sociales, que en los últimos años han supuesto una auténtica revolución en la forma de relacionarse, todavía siguen siendo algo poco presente en el ámbito académico: las ocasiones en que se utilizan son aisladas y pocas gozan de continuidad. En ese contexto, pretendemos reflexionar acerca de la actitud que los propios estudiantes tienen con respecto del uso, del aprovechamiento didáctico y de las potencialidades que las redes sociales presentan en el ámbito educativo. Para esta reflexión nos hemos valido de una encuesta realizada entre los estudiantes. La intención es que el estudio de esta actitud inicial sea el paso previo necesario para hallar las claves para que el alumnado acepte y materialice el potencial educativo de las redes sociales.

Palabras clave

tecnologías de la educación, redes sociales, expectativas, enseñanza superior

1. Introduction

In recent years, online platforms that allow people to relate to each other, otherwise known as “social networks”, have been revolutionary in terms of the speed of their uptake and the spread of subsequent applications. Indeed, it is a revolution that is only comparable to the advent and spread of e-mail in terms of its power to change human relations via the Internet. Thus, social networks have gradually become powerful spaces of interaction between different social groups, some of which are ever more specialised, where it is possible to meet people or find old friends or colleagues who share the same interests.

Regarding the specific application of these resources to the sphere of education, we should acknowledge that Web 2.0 and its particular emphasis on social dynamics has fostered the creation of virtual learning communities and a whole host of peer collaboration networks (García Sans, 2008). By design, the latter are networks based on principles of reciprocity and cooperation (Cobo & Pardo, 2007: 103) that make full use of the popularity of such services as Facebook, Twitter and the like.

Social networks are broadly defined as associations of people linked by diverse motives, which configure a structure consisting of nodes that are interconnected by more than one type of relationship (Hernández, 2008: 30). In the context in question, social network web services allow this general definition to be refined, in the sense that they offer people with shared interests the opportunity to get in touch with each other via the Internet and to jointly exploit resources such as the creation of sub-groups, public or private messaging, chats and so on. The origin of these online platforms is as varied as the platforms themselves: some of them, like Facebook for example, were developed to support different student groups on American campuses, while others have a more professional focus, such as LinkedIn, the aim of which is to establish work or business contacts through networking (Esteve, 2009: 64; Santamaría, 2008).

More than anything else, social networks concern the new participatory and active methodologies that are being adopted across the board in the European Higher Education Area (EHEA). This is particularly so for “collaborative working”, which is understood as the exchange and development of knowledge among small peer groups aiming to achieve identical academic goals (García Sans, 2008: 1) and, as consolidation platforms, they may also have a direct impact on certain learning communities. But they particularly concern collaborative working because, in essence, most of the potential of social networks can be used to the full advantage of the benefits of this learning method, of which we would underscore the following (Martín-Moreno, 2004): collaborative working increases motivation, fosters better academic performance (because individual work feeds back to group work and vice versa), enhances knowledge retention, strengthens critical thought and increases the diversity of knowledge and experience gained.

Besides being a great tool for collaborative working, the educational potential of these online platforms is practically endless. Thus, Hernández (2008: 30) takes the view that social networks are “constructivist tools” bearing a direct relationship with their potential for interaction among a group, between a group and teaching staff and among teaching staff, none of which is bound by the space and time constraints of a school environment. By overcoming these coordinates and facilitating

coordination, virtuality allows any kind and number of files to be shared and allows people to communicate in a way that most resembles real communication, by combining sound, video, documents, etc. In this respect, Ortega and Gacitúa (2008: 19) emphasise the diverse educational potential of social networks: "the construction of groups, the immediate contact and the decentralised system that characterises social networks have together facilitated the natural creation of a collective intelligence [...], a continuous learning that is the result of collaboration and cooperation. Systems that are independent, customised and, at the same time, tremendously diverse."

Despite broad consensus on the use and incredible speed of uptake of most social networks (here, for example, we are thinking of major applications that are commonly used, such as Facebook and Twitter among the general public, and Tuenti and MySpace among younger users) and the generally held view that the potential for their educational use is as vast as it is interesting, the educational exploitation of these resources is limited to isolated experiences in higher education. Paradoxically, even though social networks for teaching staff are fairly numerous, very few teachers have dared to consider or implement training activities in the classroom by using these services (Haro, 2009). Why not? Is it simply a matter of time? Or should we consider the extent to which other kinds of factors have an impact, such as a negative attitude or mistrust?

2. Objectives

It is in this context that we have undertaken research into the attitudes that first-year students have towards social networks and their educational use within the framework of the Rovira i Virgili University educational model. In this scenario, we endeavoured (1) to ascertain the level of awareness and (2) educational use of the most popular social networks among first-year students on all degree courses offered at the Terres de l'Ebre Campus, Rovira i Virgili University, through a self-distributed questionnaire specifically designed for this research project, which, in turn, would (3) provide us with information about our students' attitudes towards the educational use of these interaction platforms.

The initial findings about attitudes towards the educational use of social networks would allow us to pursue a further two objectives: (4) to establish the relationship that develops between the real use of social networks in an academic context and the expected educational usefulness, and (5) to establish the actions required to strengthen the educational use of social networks for collaborative working. Only by accurately tracing this route, from the students' perceptions of social networks to their views on their educational use, will we be able to foster their use through experiences that can be used to the full advantage of collaborative work.

3. Methodology and Context

The tool we used for our research project was a self-administered questionnaire in order to elucidate a number of aspects, such as: (1) awareness and use of the range of social networks, (2) required use of

social networks in academic experiences, (3) educational usefulness of the range of social networks, (4) potential of social networks in the sphere of education and (5) advantages and disadvantages of social networks.

Regarding the social networks chosen for the study, we tried to be representative rather than exhaustive. First, we chose the most renowned generalist networks like Facebook, Twitter, MySpace and LiveSpaces. Second, we included social networks that have a more professional focus, such as LinkedIn, aimed at strengthening professional networks, and e-LearningSocial, aimed directly at enhancing learning networks among adults. Finally, we felt that it was important to add some of the social networks aimed specifically at young people, like the majority of those in our student sample. These are Tuenti, Netlog and OdioAMiCompi, which are very popular among young people; Patatabrava, with content and information designed for university students, who represent the majority of its members; Xculpture, designed for sports fans; and finally, Flickr, designed from a multimedia exchange viewpoint.

The first three sections of the questionnaire have a 5-point scoring scale, which allowed us to obtain the means and their deviations; on the issue of potential, we asked a multiple-choice question, which allowed us to establish the mean; and finally, regarding the advantages and disadvantages of social networks, we asked open questions so that the respondents could give more subjective opinions.

One of the limitations of self-distributed questionnaires is that they may show a significant bias, so it is important to note that in the design of the tool we paid particular attention to this issue (particularly in relation to central tendency, social desirability, courtesy, learning, proximity and logic) through the distribution of questions in the questionnaire and their wording. However, this circumstance should be taken into account at all times when assessing the results obtained from using this tool.

Besides the above-mentioned questions, independent variables were taken into account, such as gender, age group, degree course that respondents are taking and the higher education entrance route, in order to find out if attitudes towards social networks are static or sensitive to various external determining factors.

Regarding the data processing, we simultaneously used SPSS 17.0 and Statgraphics Centurion 16 software. For significance testing, we used the ANOVA test. For relationships between various values, we used the Pearson correlation coefficient.

Finally, we should mention that this questionnaire was distributed to all of our first-year students on Primary Education and Pre-School Education degree courses at the Terres de l'Ebre Campus, Rovira i Virgili University, at the end of the second term of the 2009/10 academic year via Google Spreadsheets in order to make it easier to respond and to allow data to be extracted. On this Campus, the following degree courses are offered: Pre-School Education (43 students), Primary Education (41 students), Business Management and Administration (32 students) and Nursing (75 students).

4. Data Analysis

From all the students enrolled, a sample of 115 respondents was obtained (30 for Pre-School Education, 36 for Primary Education, 19 for Business Management and Administration and 30 for Nursing (see Graph 1)). The total represents 60% of the population analysed.

Graph 1. Population and sample distribution, by degree course

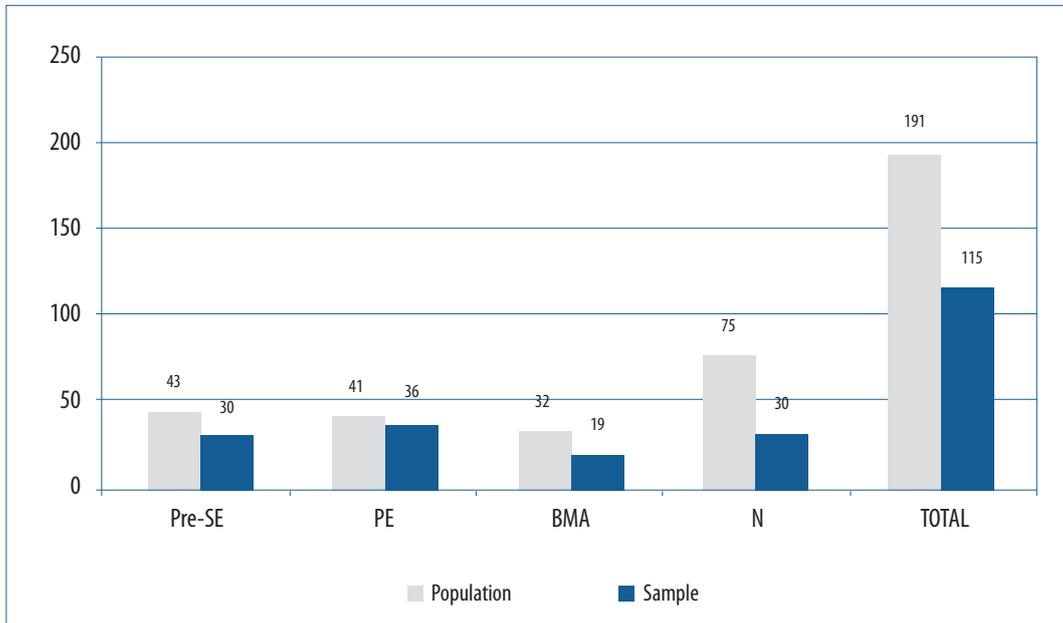


Table 1. Mean for awareness of social networks (out of 5)

	Mean	St. dev.
Facebook	4.17	1.086
Tuenti	3.10	1.429
MySpace	2.67	1.226
PatataBrava	2.47	1.416
LiveSpaces	2.11	1.185
Twitter	1.85	1.019
Netlog	1.42	0.832
Flickr	1.25	0.793
eLearningSocial	1.14	0.475
Xculpture	1.09	0.410
OdioAMiCompi	1.02	0.188

Awareness of social networks

Regarding our respondents' awareness of social networks, we found that there was a considerable difference between the most popular ones, which practically everyone in the sample was aware of and used, and other, more specific ones, such as e-LearningSocial, Xculpture and OdioAMiCompi, which almost everyone in the sample seemed to be unaware of and therefore did not use. In contrast,

we were able to observe that the dispersion of responses was the opposite: the lower the mean for awareness and use, the lower too is the respective standard deviation. Consequently, we were able to deduce that the best-known social networks are the ones that are most unevenly used by the sample as a whole, while the least-known ones are generally also the least-used ones.

Required use of social networks in academic experiences

The data for the required use of the social networks in academic experiences by the respondents in our sample could not be any clearer: none of them stated that they had used social networks for academic purposes at the instruction of teaching staff.

Expected educational usefulness of social networks

Regarding the educational usefulness that our respondents expected from social networks, we found that the data point in two directions. First, the top social networks for awareness and use once again appeared in prime positions. In contrast, the least-known and little-used social networks are the ones that respondents considered to have lower expected educational usefulness. However, the second direction that we needed to assess was that the means on our 5-point scale had fallen considerably in comparison to the means for awareness and use. While the mean for awareness and use of Facebook was higher than 4, the mean for educational usefulness did not reach 3. This situation was repeated throughout. In addition, the standard deviations in this case were always greater than 1, suggesting that the respondents' opinions on this issue were much more uniform than in the previous instance.

Table 2. Mean for expected educational usefulness of social networks (out of 5)

	Mean	St. dev.
Facebook	2.82	1.182
PatataBrava	2.69	1.535
Tuenti	2.33	1.152
MySpace	2.12	1.137
elearningSocial	1.98	1.304
Twitter	1.97	1.100
Linkedin	1.97	1.274
LiveSpaces	1.96	1.093
NetLog	1.68	1.004
Flickr	1.57	0.920
OdioAMiCompi	1.55	0.937
Xculpture	1.54	0.941

When taking the independent variables we worked with into account in the analysis of these data, we found that the awareness of social networks, as could be expected, is sensitive to the age variable. Thus, for most of the social networks, we found significant differences ($p < 0.05$) between the youngest and oldest respondents, suggesting that, as age decreases, the awareness of social networks increases. This sensitivity was particularly apparent for social networks like Tuenti and MySpace, which are aimed at a much younger audience. In contrast, we found the opposite for Twitter. None of the remaining independent variables, such as gender, degree course or entrance route, were productive.

Relationship between awareness of and expected educational usefulness of social networks

Table 3 shows how the general pattern is repeated. In other words, the greater the awareness and use of social networks, the greater the expected educational usefulness. Thus, with the exception of Patatabrava, whose mean for expected educational usefulness is higher than the mean for awareness and use of it (in both cases, note that the standard deviations are higher than the other cases), we can see how the pattern that we have just explained is always repeated. Therefore, Facebook, Tuenti and MySpace are not only the three best-known social networks, but also the ones that respondents considered to be the most useful in terms of educational exploitation.

Table 3. Relationship between the mean for awareness and the mean for expected educational usefulness of the most popular social networks

	Mean	St. dev.
A_Facebook	4.17	1.086
A_Tuenti	3.10	1.429
EU_Facebook	2.82	1.182
EU_PatataBrava	2.69	1.535
A_MySpace	2.67	1.226
A_PatataBrava	2.47	1.416
EU_Tuenti	2.33	1.152
EU_MySpace	2.12	1.137

In the same sense, the correlation table below shows, in the first instance, the extent to which a direct relationship between the awareness of a social network and its expected educational usefulness is, in many cases, confirmed (as examples of this, we have highlighted the cases of Facebook, Twitter and Patatabrava in the table, where it is possible to see that this correlation is significant and positive, suggesting that the greater the awareness of social networks, the greater the expected educational usefulness).

Table 4. Correlations between awareness and expected educational usefulness of some social networks (* correlation is significant at 0.05; ** correlation is significant at 0.01)

	Pearson coefficient	Significance
<i>Facebook</i> Correlation between awareness and use, and expected educational usefulness	0.196	0.036*
<i>Twitter</i> Correlation between awareness and use, and expected educational usefulness	0.276	0.007**
<i>Patatabrava</i> Correlation between awareness and use, and expected educational usefulness	0.563	0.000**

Educational potential of social networks

Regarding the educational potential of social networks, we presented the sample studied with a set of options so that they could choose the ones that they considered the most productive from an educational viewpoint. In principle, they were asked to assess the environments and their educational potential: if they considered that they allowed document and photos to be shared, if they facilitated family-school communication, if they helped teachers to share knowledge, if they helped pupils to share knowledge (with adult supervision), or if they facilitated communication in other contexts.

Given the percentages shown in Table 5, we can conclude that our respondents considered social networks to be particularly productive from an educational viewpoint for sharing files, whether documents or photos. Likewise, they also valued these tools for their potential as communication resources. Finally, the percentages are given for the potential of social networks to facilitate knowledge transfer and sharing, between teachers, between pupils (with adult supervision) and between users. The percentages vary little between one another, and are always low, thus suggesting that our students did not feel that the educational potential of social networks was that great from any of these angles. The percentages are always low, and we could almost consider them to be residual. It is with these results that we now come to the final consideration of this article, which is this: the students' expectations of the educational potential of social networks are surprisingly low.

Table 5. Educational potential of social networks

Document sharing	13.05 %
Photo sharing	13.05 %
Fostering family-school communication	2.61 %
Knowledge sharing between teachers	3.48 %
Knowledge sharing between pupils (adult control)	4.35 %
Knowledge sharing between users	5.22 %
Fostering communication	6.09 %

5. Discussion and Conclusions

Having presented the data, now it is time to relate them to the objectives of the research project, as described earlier (see section 2). After analysing the responses to the questionnaire that we had made available to our students, we came to a number of conclusions. First, our students had positive attitudes as users of social networks. The values for awareness and use of some of them were particularly high, indicating that there is an obvious absence of any particular mistrust that would stop the students from using them. A different matter is that, after analysing the educational usefulness that these respondents expected from social networks, the indicators are substantially lower. Between the first of the two reflections and the second, there is an apparent paradox because, given that our students are willing users of social networks, there should not be any obstacle preventing them from considering that their use could offer some type of academic benefit. However, account should also be taken of the significance of the fact that none of the students that acted as respondents for this research project had used any social network for any educational experience at the instruction of teaching staff. Our students are potentially open to using social networks in an academic context (and that gives us hope, since it appears to be right to think that, after a positive experience of an educational use of social networks, those respondents undertaking one of the two degree courses in Education could export it to their future working environment). However, *potentially* is the operative word in our assertion because reality shows that, despite their awareness and use of social networks as users, their expectations of them in the academic context are considerably lower.

The initial findings about students' attitudes towards the educational use of social networks necessarily lead us to another two considerations of a different kind. Regarding the relationship between real use and expected educational use, it is fair to say that this was confirmed: in most cases, the best-known social networks – and most used by students in their personal lives – are the ones that our respondents felt would offer the best educational benefit. A much more detailed analysis of this issue than the one we are able to perform here, may reveal the extent to which there is a much stronger relationship than the one we have mentioned between the level of working knowledge of a tool and the number of different activities for which it is considered to be useful.

However, it is perhaps the final reflection that is the most revealing. That, for our students, there was an obvious absence of any negative attitude towards the educational use of social networks. Today, and we do not know how long we can continue to maintain this assertion, we must acknowledge that all ICT-mediated educational procedures arouse a kind of interest that traditional methodologies do not. However, it is also true to say that our students did not show themselves to be particularly enthusiastic about the educational use of social networks, and that is directly connected with the fact that they had never used them in an academic context. If, as we believe, users' attitudes towards a resource are so crucial to the uptake or failure of that resource, the first thing that we should do is carry out some initial work and reflect collectively on the attitudes of our own students. This will help us make the most of all the educational potential that ICTs indeed have for publishing in general and for social networks in particular. Thus, we will be able to confirm and assert that the added value of social networks is grounded in a social appeal based on a combination of formal and informal learning, on simplicity, on fostering communication between students, on the ability to decentralise

and build modular school or classroom activities, and on a potentially mass use organised by vast numbers of stakeholders, with a generalist use that promotes the initial incorporation of teaching staff (Haro, 2009: 8).

As Flores (2009) argues, the problem of social networks may lie in the fact that universities and businesses have not taken on board the change that the Internet is generating, where we have users who choose, disagree on, comment on and modify information at an incredibly fast rate. The impact that the Internet has had, is still having and apparently will have on the development of social networks in a variety of contexts is unquestionable. Therefore, educators and educational institutions in different areas and at different educational stages cannot avoid them. But, will the education community be able to create meaning for something that, having been invented for a much wider audience, we are trying to adapt to a restricted and highly-formal purpose? (Barberá, 2008: 7). In this respect, we should also bear in mind that we are the ones responsible for this change of attitude towards new educational models because we have been assigned the mission of being open to change in the communication environment and the social uses of the Internet and, subsequently, of transferring them to our teaching practice. "The real transformation lies in educational dynamics, in the educational process going on in the classroom [...]. Active and social use of the Internet cannot be ignored in teachers' planning" (Duart, 2009: 1).

The power we have in our hands is enormous: in our teaching practices and individual actions, we can set off on the path towards the mass use of participatory, active methodologies of which there has been so much talk in the EHEA context. To do that, social networks may, to a large extent, help us consolidate cooperative working methods that are much more beneficial from a learning viewpoint. However, we will only achieve that through conscious action in that direction. For example, after analysing the advice and recommendations of a series of social protocols in her study on the regressive impact of MySpace as a platform for launching and disseminating the work of a whole host of authors and musicians, Suhr (2010) points to the enormous power we have in terms of establishing these standards for strengthening the use of certain social networks or for ensuring that they fall into disuse.

The usual trend is towards teaching models that are not very innovative, that do not consider educational alternatives to the processes of face-to-face learning and which, therefore, are based on systems where, with slight variations, teachers speak and students listen. This is partially demonstrated by the data we gathered. In the very same sense, García Sans (2008: 3) regrets that the mistrust of social networks has not only led to minimal research on their educational benefit, but also to the fact that many teachers have the same feeling of rejection towards technology used by students, since it interferes in the natural flow of traditional education (Handley 2007). Nevertheless, social networks are here to stay and to change the way we relate to each other. Whether or not our ways of working, doing research and learning remain on the sidelines of this revolution is up to us and the attitudes of our students.

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